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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,175	06/30/2005	Masanori Shojiya	14434.85USWO	4887
52835	7590	01/02/2009	EXAMINER	
HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902			HOBAN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			1793	
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			01/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,175	SHOJIYA ET AL.	
	Examiner	Art Unit	
	Matthew E. Hoban	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 September 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Zou in 6,294,490.

Zou teaches a crystallized glass suitable as a substrate for an information recording medium, where undulations can be formed on the glass through laser beam radiation (Abstract and column 23, Lines 50-55). One example of a specific composition reading on the instant claims is Composition #2-7. As was previously stated, undulation and texturing can be added to these glasses through laser beam radiation (See Column 23, Lines 50-55).

Regarding Claims 1-2 and 8 and 13: Zou teaches compositions falling within the range of the instant claims in example 2-7, where the composition includes 47 mol% SiO₂, 12.5 mol% Al₂O₃, 30.5 mol% MgO, 10 mol% TiO₂. Thus SiO₂ is the network forming oxide, and MgO is the network modifying oxide. And the amount of Al₂O₃+TiO₂ is 22.5 mol%. Thus this composition reads on all aspects of the claims and contains no yttria. Other relevant compositions include 2-12, 2-13, and 2-16.

Regarding Claim 9-12: The composition of Zou consists essentially of TiO₂, SiO_{2m} and MgO, an alkaline earth oxide. The composition further includes alumina; however, this oxide falls within the consisting essentially of language, since the specification shows that alumina does not deleteriously affect the novel properties of the composition, but in fact is useful in achieving the invention.

Regarding Claim 14: Example 2-13, which was mentioned previously reads on all compositional requirements as presented in claims 8 and 13 and further incorporates Cerium Oxide into the composition.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1793

5. Claims 3-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zou in 6,294,490.

Zou teaches a crystallized glass suitable as a substrate for an information recording medium, where undulations can be formed on the glass through laser beam radiation (Abstract and column 23, Lines 50-55). Several examples of the glass composition are given in Tables 1-6, which read on the instant claims. Compositions 2-7, 12, 13, and 16 are of particular relevance. As was previously stated, undulation and texturing can be added to these glasses through laser beam radiation (See Column 23, Lines 50-55). Zou is silent as to the parameters fm, Fm, alpha, Nbo, Msi, Tsi, and the number of Ti-O-Si bonds per SiO₄; however the compositions of Zou are the same as those which are claimed, so the properties of Zou's glass, including all of the above mentioned parameters must be the same. Furthermore Zou's glass is suitable for laser texturing which is highly dependant on many of the above characteristics. Therefore, these characteristics must be inherent as there has been nothing made of record to show the contrary.

Response to Arguments

6. Applicant's arguments filed 09/22/2008 have been fully considered but they are not persuasive. Applicant argues that nothing in Zou suggests any reason to prepare a composition without yttria; however, this assertion appears to be incorrect based on the exemplary compositions shown by Zou in Table 3 and 4. Several of these compositions

have NO yttria and read on all other aspects of the claim. Thus the rejection is maintained on these examples as cited in the preceding rejection. Applicant's arguments are only directed towards ONE aspect of Zou's invention, where Zou presents several aspects, which do not necessitate yttria. Thus arguments to the art rejection are not convincing. Arguments directed towards the objection of claim 3; however, are convincing and this objection is withdrawn. The factor R_0 caused confusion previously, but its importance and value is now clear. Furthermore, the filing of the TD is noted and the double patenting rejection is also withdrawn.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Hoban whose telephone number is (571) 270-3585. The examiner can normally be reached on Monday - Friday from 7:30 AM to 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit 1793

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